

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
NORFOLK DIVISION**

CENTRIPETAL NETWORKS, INC.,

Plaintiff,

v.

PALO ALTO NETWORKS, INC.,

Defendant.

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Civil Action No. 2:21-CV-00137-RCY-RJK

**MEMORANDUM IN SUPPORT OF DEFENDANT’S MOTION TO DISMISS
PLAINTIFF’S AMENDED COMPLAINT**

Defendant Palo Alto Networks, Inc. (“PAN”) filed a motion to dismiss Plaintiff Centripetal Networks, Inc.’s original Complaint on the basis that (1) Centripetal fails to plausibly state a claim of direct, indirect, or willful infringement, and (2) three of the Asserted Patents claim patent-ineligible subject matter under 35 U.S.C. § 101. *See* Dkt. 42-43. Thereafter, Centripetal filed an Amended Complaint that suffers from the same defects. *See* Dkt. 65. Centripetal’s inability to remedy those defects confirms that its claims should be dismissed with prejudice. Accordingly, pursuant to Fed. R. Civ. P. 12(b)(6), PAN moves to dismiss Centripetal’s Amended Complaint and submits this Memorandum in support of its Motion.

Centripetal’s infringement claims suffer from the same fatal defects as the claims in its original Complaint. First, Centripetal’s claims for pre-suit indirect infringement—including both induced and contributory infringement—and its claims for willful infringement fail because Centripetal has not plead any facts from which one could reasonably infer that PAN had pre-suit knowledge of any of the Asserted Patents. Second, Centripetal’s claims for contributory infringement (both pre- and post-suit) fail because Centripetal has failed to allege facts to support

a plausible inference that the accused products have no substantial non-infringing uses—an essential element to a claim for contributory infringement. Third, Centripetal’s willfulness claims fail because its allegations regarding egregious behavior are wholly conclusory.

Finally, Centripetal’s direct and indirect infringement claims fail because they are long on words but short on substance, failing to provide enough specificity to (1) put PAN on notice of what products/combinations are accused of infringement and (2) articulate why it is plausible that any product/comboination infringes. Rather, Centripetal’s direct infringement claims randomly intersperse claim language with unrelated, disorganized factual allegations, failing to indicate what products/combinations allegedly satisfy the asserted claims and why. Because liability for indirect infringement (both inducement and contributory infringement) arises only if there is direct infringement, this failing is fatal to both Centripetal’s direct and indirect infringement claims, too.

As to patent-ineligibility, the claims of U.S. Patent Nos. 10,542,028, 10,757,126, and 10,091,246 (the “Ineligible Patents”) fail both steps of the patentability test articulated in *Alice Corp. Pty. Ltd. v. CLS Bank Int’l.*, 573 U.S. 208, 217-19 (2014). In its Amended Complaint, Centripetal recasts its attorney argument, made in opposition to PAN’s motion to dismiss the original Complaint (Dkt. 50), as “factual” allegations, even though PAN’s briefing established that those arguments are unavailing under controlling case law. Centripetal’s new “factual” allegations do not change the legal conclusion here that the claims of the Ineligible Patents (the “Ineligible Claims”) fail both steps of the *Alice* test. Dkt. 65.

At *Alice* step one, the Ineligible Claims are directed to filtering and sorting data (here, computer network packets) based on rules—an age-old idea that has repeatedly been held impermissibly abstract and patent-ineligible. *Intell. Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1313-14 (Fed. Cir. 2016) (“*IVF*”) (filtering emails based on rules is impermissibly abstract);

Glasswall Solutions, Ltd. v. Clearswift Ltd., 754 F. App'x 996, 997-98 (Fed. Cir. 2018) (“filtering electronic files and data” is impermissibly abstract); *see also Limelight Networks, Inc. v. XO Commc'ns, LLC*, 241 F. Supp. 3d 599, 607 (E.D. Va. 2017) (“sorting according to a set of rules” patent-ineligible) (citation omitted). Using rule-based filtering is not unique to computer networks, and has long been used in a variety of “brick and mortar” security protocols. Far from being “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks,” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014), the Ineligible Claims are directed to long-standing problems outside the realm of computer networks. Further, the Ineligible Claims are written in functional terms, describing a desired result instead of a particular solution for achieving that result—“a frequent feature of claims held ineligible under § 101.” *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1356 (Fed. Cir. 2016).

At *Alice* step two, once the abstract idea is removed from the Ineligible Claims, none of what remains recites anything inventive—such as new components, or a technological improvement to the functioning of the recited conventional components—that might transform the claims into patent-eligible subject matter. To the extent the Ineligible Claims recite components at all, those components—such as processors and memory—are conventional, and the claims recite them to perform only their conventional functions (*e.g.*, a processor processing, and a memory storing instructions). Critically, none of the Ineligible Claims “overrides” the routine and conventional use of the claimed components. *Cf. DDR*, 773 F.3d at 1258 (finding claims to be patent-eligible where there was such “override”).

Accordingly, Centripetal’s First through Fourth, Twenty-First, and Twenty-Second causes of action, should be dismissed with prejudice.

I. FACTUAL AND PROCEDURAL BACKGROUND

Centripetal alleges that PAN infringes thirteen patents from six different families by making/using/selling one or more of seven different product lines: Next Generation Firewall (“NGFW”), Panorama, Cortex, AutoFocus, MineMeld, DNS Security Service, and Enterprise DLP Service (collectively the “Accused Products”). *See generally* Dkt. 65 (Centripetal’s Amended Complaint) (hereinafter “Am. Compl.”). For each Asserted Patent, Centripetal alleges that PAN both directly and indirectly infringes. *See id.* at ¶¶ 64-65. With respect to indirect infringement, Centripetal alleges that PAN both induces and contributes to infringement. *Id.* Centripetal further contends that PAN’s alleged infringement was willful. *Id.* at ¶ 67.

II. ARGUMENT

A. Applicable Legal Standards

To survive dismissal under Rule 12(b)(6), “a complaint must contain sufficient factual matter, accepted as true, to ‘state a claim to relief that is plausible on its face.’” *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (quoting *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007)). “Threadbare recitals of the elements of a cause of action, supported by mere conclusory statements, do not suffice.” *Iqbal*, 556 U.S. at 678; *see also Twombly*, 550 U.S. at 557. Accordingly, the plaintiff must “do more than simply allege that he or she is entitled to relief;” instead, “the complaint must ‘show’ that the plaintiff is entitled to relief” through well-pled facts. *Macronix Int’l Co. v. Spansion Inc.*, 4 F. Supp. 3d 797, 801 (E.D. Va. 2014) (referencing Fed. R. Civ. P. 8). A plaintiff cannot satisfy this burden through “unwarranted inferences, unreasonable conclusions, or arguments” masquerading as factual allegations. *Nemet Chevrolet, Ltd. v. Consumeraffairs.com, Inc.*, 591 F.3d 250, 255 (4th Cir. 2009). Similarly, “legal conclusions, elements of a cause of action, and bare assertions devoid of further factual enhancement fail to constitute well-pled facts for Rule 12(b)(6) purposes.” *Id.*

1. Direct Infringement

Direct infringement claims are subject to the pleading standards established in *Iqbal* and *Twombly*, which require more than “vague generalities” and “conclusory formulaic recitations” of infringement. *Golden v. Apple Inc.*, 819 F. App’x 930, 931 (Fed. Cir. 2020), cert. denied, 141 S. Ct. 1067, 208 L. Ed. 2d 530 (2021) (citing *Twombly*, 550 U.S. at 570; *Iqbal*, 556 U.S. at 678). As the Federal Circuit recently held, although “[a] plaintiff is not required to plead infringement on an element-by-element basis,” it must nonetheless provide enough specificity to “place the alleged infringer ‘on notice of what activity . . . is being accused of infringement.’” *Bot M8 LLC v. Sony Corp. of Am.*, ___ F.4th ___, 2021 WL 2932690, at *6 (Jul. 13, 2021) (quoting *Lifetime Indus., Inc. v. Trim-Lock, Inc.*, 869 F.3d 1372, 1379 (Fed. Cir. 2017)). Specifically, a complaint must include “factual allegations that, when taken as true, articulate why it is plausible that the accused product infringes the patent claim.” *Id.* at *7.

2. Induced Infringement

To adequately plead induced infringement, a complaint must contain facts plausibly showing, among other things, that defendant “knew that the customer’s acts constituted infringement.” *CarFax, Inc. v. Red Mountain Techs., Inc.*, 119 F. Supp. 3d 404, 415 (E.D. Va. 2015) (citing *In re Bill of Lading Transmission & Processing Sys. Patent Litig.*, 681 F.3d 1323, 1339 (Fed. Cir. 2012)). It is not enough to simply allege that a defendant knew of the allegedly infringing act—plaintiff must allege facts that plausibly support the conclusion that defendant both (a) knew of the patent, and (b) knew that the induced acts constitute infringement. *See Commil USA, LLC v. Cisco Sys., Inc.*, 575 U.S. 632, 639 (2015).

3. Contributory Infringement

With respect to contributory infringement, plaintiff must plead facts plausibly showing, among other things, that (1) defendant knew of the asserted patents, and (2) the accused products

have “no substantial non-infringing use.” *Jenkins v. v. LogicMark, LLC*, No. 3:16-CV-751-HEH, 2017 WL 376154, at *4 (E.D. Va. Jan. 25, 2017); *see Bill of Lading*, 681 F.3d at 1337 (to survive a motion to dismiss, a plaintiff must plead, *inter alia*, “facts that allow an inference that the components sold or offered for sale have no substantial non-infringing uses.”).

4. *Willfulness*

A plaintiff alleging willful infringement must “plead facts sufficient to support an inference ‘plausible on its face’ that the alleged conduct is of the egregious nature described in [*Halo Elecs., Inc. v. Pulse Elecs., Inc.*, 136 S. Ct. 1923, 1935 (2016)].” *Jenkins*, 2017 WL 376154, at *5. To do so, plaintiff must allege facts from which the Court could plausibly infer that (1) “[defendant] had actual notice of the patents-in-suit,” and (2) “[d]efendant's actions were ‘willful, wanton, malicious, bad-faith, deliberate, consciously wrongful, flagrant, or—indeed—characteristic of a pirate.’” *Id.* (quoting *Halo*, 136 S. Ct. at 1932). With respect to knowledge, *pre-suit* knowledge is “a ‘prerequisite’ to a willfulness claim.” *Bushnell Hawthorne, LLC v. Cisco Sys.*, No. 1:18-CV-760, 2019 WL 8107921, at *2 (E.D. Va. Feb. 26, 2019) (dismissing willfulness allegations because “[c]omplaint alleges no facts making it plausible, as opposed to merely possible, that defendant had pre-lawsuit knowledge); *accord Välinge Innovation AB v. Halstead New England Corp.*, No. CV-16-1082, 2018 WL 2411218, at * 11 (D. Del. May 29, 2018) (rejecting assertion that willful infringement claim “may solely be based on post-suit conduct”).

5. *Patent Ineligible Subject Matter*

Patent eligibility under § 101 is a question of law, which courts may resolve on a motion to dismiss. *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015); *Consumer 2.0, Inc., v. Tenant Turner, Inc.*, 343 F. Supp. 3d 581, 583 (E.D. Va. 2018), *aff’d*, 796 F. App’x 752 (Fed. Cir. 2020) (granting motion to dismiss as patent-ineligible claims that “use generic computing devices and techniques to provide automated entry to a property”). Claims directed to

abstract ideas are not patentable. *Alice*, 573 U.S. at 216-17. Courts apply a two-step framework “distinguishing patents that claim ... abstract ideas from those that claim patent-eligible application of those concepts.” *Id.* at 217. In applying this framework, courts may rely on “representative claims” where, as here, the challenged claims are “substantially similar and linked to the same abstract idea.” *Content Extraction*, 776 F.3d at 1348; *CalAmp Wireless Networks Corp. v. ORBCOMM, Inc.*, 233 F. Supp. 3d 509, 512 n.1 (E.D. Va. 2017).

At *Alice* step one, courts “must first determine whether the claims at issue are directed to a patent-ineligible concept.” *Id.* at 218. This requires “looking at the ‘focus’ of the claims, their ‘character as a whole,’” to determine if they are directed to excluded subject matter. *Elec. Power*, 830 F.3d at 1353. “The inquiry often is whether the claims are directed to ‘a specific means or method’ for improving technology or whether they are simply directed to an abstract end-result.” *RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 1322, 1326 (Fed. Cir. 2017) (citation omitted). A claim that can be performed mentally or analogized to brick-and-mortar concepts likely is directed to an abstract idea. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371 (Fed. Cir. 2011) (“[M]ethods which can be performed mentally, or which are equivalent of human mental work, are unpatentable abstract ideas”); *IV I*, 838 F.3d at 1314 (analogizing abstract claim to brick-and-mortar post office).

At *Alice* step two, **after** removing the abstract idea from the claims, courts search for a remaining “‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation omitted). There is nothing inventive about implementing an abstract idea using “‘well-understood, routine, conventional activit[ies]’ previously known to the industry.” *Id.* at 225 (citation omitted). Likewise, limiting a claim to a particular technological environment does not supply an inventive concept to an otherwise abstract

claim. *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1348-49 (Fed. Cir. 2014).

B. Centripetal Fails To Plausibly Allege Willful Infringement or Indirect Infringement (Induced or Contributory)

1. *Centripetal's Failure to Plausibly Allege Pre-Suit Knowledge of the Patents is Fatal to Centripetal's Willful Infringement and Pre-Suit Indirect Infringement Claims*

Centripetal's allegation that notice of the Asserted Patents was provided via service of the Complaint and Amended Complaint is insufficient to sustain its claims for willful infringement and pre-suit indirect infringement. "[P]re-lawsuit knowledge of the patent" is "a prerequisite for a willfulness claim." *Bushnell*, 2019 WL 8107921 at *2. Thus, to survive a motion to dismiss its willful infringement claims, Centripetal must plausibly demonstrate that PAN had knowledge of the Asserted Patents *before* Centripetal filed its original Complaint. *Id.* (dismissing willfulness allegations because "[c]omplaint alleges no facts making it plausible, as opposed to merely possible, that defendant had pre-lawsuit knowledge of the patent). Similarly, to state a claim for indirect infringement based on pre-suit conduct, Centripetal must plead facts sufficient to plausibly demonstrate that PAN had knowledge of the Asserted Patents *before* Centripetal filed its original Complaint. *See DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1304 (Fed. Cir. 2006) ("The requirement that the alleged infringer knew or should have known his actions would induce actual infringement necessarily includes the requirement that he or she knew of the patent."); *Fujitsu Ltd. v. Netgear Inc.*, 620 F.3d 1321, 1326 (Fed. Cir. 2010) ("To establish contributory infringement, the patent owner must show ... that the accused infringer had knowledge of the patent...."); *see also DoDots Licensing Solutions LLC v. Lenovo Holding Company, Inc.*, No. CV-18-098, 2019 WL 3069773, at *4 (D. Del. July 12, 2019) (dismissing pre-suit indirect infringement claims because the amended complaint "include[d] no factual allegations that plausibly suggest

Defendants possessed the requisite knowledge of infringement of any of the Patents-in-Suit ***prior to filing the original Complaint***”); *Radware, Ltd. v. A10 Networks, Inc.*, 2013 WL 5373305, *2-3 (N.D. Cal. Sept. 24, 2013) (dismissing all claims for indirect infringement based on activities occurring before knowledge of the asserted patent).

As in its original Complaint, none of the factual allegations in Centripetal’s Amended Complaint, either alone or in combination, plausibly demonstrates that PAN had pre-suit knowledge of any Asserted Patent. In fact, Centripetal merely repeats its Original Complaint’s insufficient allegations. First, Centripetal alleges that “PAN had knowledge of the Asserted Patents based on PAN’s interactions with Centripetal through various channels.” Am. Compl. ¶¶ 67-68. These purported interactions consist of: (1) alleged visits to portions of “Centripetal’s website regarding business, products, patents, and press releases discussing Centripetal’s patent litigations,” and (2) receipt of “datasheets and white papers regarding Centripetal’s products” either by downloading them from Centripetal’s website or through correspondence with Centripetal personnel. *Id.* at ¶¶ 68. As to the datasheets, Centripetal asserts that the documents “indicate Centripetal’s products are subject to one or more U.S. patents.” *Id.* But even if true, none of those allegations plausibly demonstrates that PAN had knowledge of the Asserted Patents.

Centripetal does not allege that any material purportedly accessed or received by PAN identified any Asserted Patent. At most, Centripetal’s allegations demonstrate merely that it is conceivable, but not plausible, that PAN knew of the Asserted Patents. Such allegations are “not sufficient for pleading knowledge under *Iqbal/Twombly*.” *See Rembrandt Soc. Media, LP v. Facebook, Inc.*, 950 F. Supp. 2d 876, 883 (E.D. Va. 2013) (sharing the same law firm, purchasing a patent that cited asserted patent, and being sued for infringement of a patent that cited asserted patent demonstrated nothing “more than a conceivable possibility of knowledge of the [asserted

patent], rather than a plausible inference that [defendant] possessed such knowledge”).

Second, Centripetal alleges that PAN had knowledge of the Asserted Patents “by way of Centripetal’s marking of its products.” Am. Compl. ¶ 68. But marking is merely a means by which to provide constructive notice. It is self-evident that constructive notice and actual notice are not the same thing.¹ Accordingly, Centripetal’s marking allegations are insufficient to plausibly demonstrate that PAN had actual knowledge of any Asserted Patent at any time before the filing of this lawsuit.

Third, Centripetal alleges that the parties had interactions in 2016 and 2017 in which Centripetal disclosed information about its “proprietary and patented technology.” Am. Compl. ¶¶ 69-70, 72. Specifically, Centripetal alleges that: (1) Centripetal and PAN had conversations in 2016 in which Centripetal disclosed “details about its proprietary and patented technology,” *id.* at ¶¶ 69-70; and (2) in 2017, Centripetal and PAN discussed “Centripetal’s technology” in the context of an investment opportunity, and thereafter PAN “requested access to technical documentation regarding Centripetal’s products,” *id.* at ¶ 72. Centripetal’s contention that these interactions could confer knowledge of the Asserted Patents is contrary to law. The interactions in question took place *more than a year before* any of the Asserted Patents issued,² and thus cannot show that PAN had knowledge of patents that did not yet exist. *See, e.g., Adidas America, Inc., v. Skechers USA, Inc.*, No. 3:16-CV-1400, 2017 WL 2543811, *4 (D. Or. June 12, 2017) (“As a matter of law, Plaintiffs could not have acquired knowledge of the patents-in-suit before their issuance . . .”). Regardless, Centripetal alleges only that the discussions related to Centripetal’s “technology,” and does not allege that any patents were even discussed. Am. Compl. ¶¶ 69-70, 72.

¹ *See, e.g., Arctic Cat Inc. v. Bombardier Recreational Prod. Inc.*, 950 F.3d 860, 864 (Fed. Cir. 2020) (distinguishing “constructive notice”—i.e., via marking—from “actual notice”).

² The ‘906 Patent, issued on October 2, 2018, was the first of the Asserted Patents to issue.

Fourth, Centripetal alleges that “[s]ince 2016, Centripetal has met with PAN employees at several industry conferences” and “provided demonstrations of its products at these industry conferences.” *Id.* at ¶ 71. This allegation is similarly insufficient to support a plausible inference that PAN had knowledge of the Asserted Patents. As an initial matter, Centripetal does not allege that any of these conferences took place after the Asserted Patents issued—one of which issued as recently as February 23, 2021.³ Discussions occurring before the Asserted Patents existed could not possibly provide knowledge of those patents. Further, Centripetal does not allege that *any* patents—much less the Asserted Patents—were discussed at the conferences; instead, Centripetal alleges merely that it “provided demonstrations of its *products*.” *Id.* at ¶ 71 (emphasis added).

Fifth, Centripetal alleges that PAN knew of the Asserted patents through public information related to Centripetal’s previous litigation with Keysight and Cisco. *Id.* at ¶ 73. However, not one of the Asserted Patents was at issue in the *Keysight* or *Cisco* cases.⁴ As such, even if PAN had knowledge of the patents litigated in those cases, that would not plausibly show that PAN had knowledge of the Asserted Patents.⁵

In sum, none of Centripetal’s allegations shows it is plausible that PAN had pre-suit knowledge of the Asserted Patents—at most, they show merely that it is “conceivable”—which is insufficient as a matter of law. *See Rembrandt*, 950 F. Supp. 2d at 883. As such, Centripetal’s

³ The ’797 Patent issued on February 23, 2021.

⁴ *See* Amended Complaint, *Centripetal Networks, Inc. v. Keysight Techs., Inc.*, Case No. 2:17-cv-383-HCM-LRL, ECF 192 (E.D. Va. Jun. 13, 2018) (asserting U.S. Patent Nos. 9,264,370; 9,137,205; 9,560,077; 9,413,722; 9,565,213; and 9,917,856); Amended Complaint, *Centripetal Networks, Inc. v. Cisco Systems, Inc.*, Case No. 2:18-cv-94-MSD-LRL, ECF 29 (E.D. Va. March 29, 2018) (asserting U.S. Patent Nos. 9,686,193; 9,560,176; 9,560,077; 9,413,722; 9,203,806; 9,160,713; 9,124,552; 9,565,213; 9,137,205; 9,674,148; and 9,917,856).

⁵ Knowledge of a parent patent does not support a plausible inference that the party had knowledge of other patents in the family. *See, e.g., Virginia Innovation Sciences, Inc. v. Samsung Elecs. Co., Ltd.*, 983 F. Supp. 2d 700, 709–712 (E.D. Va. 2013).

claims for pre-suit indirect infringement (both induced and contributory) and its claims for willfulness should be dismissed with prejudice.

2. *Centripetal's Willful Infringement Claims Also Fail Because Centripetal Has Not Plausibly Alleged that PAN's Conduct was Egregious*

As with its original Complaint, Centripetal's willfulness claims fail because Centripetal has not pled facts plausibly showing that PAN's conduct was egregious. *See Bushnell*, 2019 WL 8107921, at *1-2 (“[T]o state a plausible claim of willful infringement, the complaint must also allege facts to demonstrate the defendant's behavior was egregious under the circumstances.”); *see also Halo*, 136 S. Ct. at 1935 (limiting willfulness infringement to “egregious cases of misconduct beyond typical infringement.”). Centripetal's willfulness allegations include only a formulaic recitation of the elements of the claim—*i.e.*, that PAN's infringement is “willful and egregious” and that “PAN has acted with blatant and egregious disregard for Centripetal's patent rights with an objectively high likelihood of infringement”—but do not include specific *factual* allegations of egregious acts. *See* Am. Compl. ¶¶ 76-77. Instead, Centripetal offers only conclusory allegations that PAN's infringement was willful and egregious because it was “aware of the Asserted Patents” and “has undertaken no efforts to avoid infringement.” *See id.* ¶¶ 74-76.⁶

“Threadbare recitals of the elements of a cause of action, supported by mere conclusory statements, do not suffice.” *Iqbal*, 556 U.S. at 678; *see also Twombly*, 550 U.S. at 557 (“[A] complaint is insufficient if it relies upon ‘naked assertions’ and ‘unadorned conclusory allegations’ devoid of ‘factual enhancement.’”). Indeed, courts in this district and others routinely dismiss such conclusory willful infringement claims. *See Jenkins*, 2017 WL 376154, at *5 (requiring pleading facts supporting an inference “that the alleged conduct is of the egregious nature

⁶ Centripetal repeats the same sort of conclusory allegations in the direct infringement counts for each of the Asserted Patents. *See id.* at ¶¶ 91-94, 120-123, 152-155, 186-189, 215-218, 245-248, 275-278, 306-309, 332-335, 361-364, 391-394, 420-423, 452-455.

described in *Halo*”); *Varian Med. Sys., Inc. v. Elekta AB*, No. 15–871, 2016 WL 3748772, at *8 (D. Del. July 12, 2016) (dismissing willfulness allegation for failing to state facts showing that defendants’ actions “actually amounted to an egregious case of infringement of the patent”); *CG Tech. Dev., LLC v. Zynga, Inc.*, No. 2:16-CV-859-RCJ-VCF, 2017 WL 662489, at *4 (D. Nev. Feb. 17, 2017) (“Under *Halo*, Plaintiffs have failed to state a claim for willful infringement because they have failed to allege any facts suggesting that Defendant’s conduct is ‘egregious . . . beyond typical infringement.’” (quoting *Halo*, 136 S. Ct. at 1935 (alteration in original))). For these reasons, Centripetal’s willful infringement claims should be dismissed with prejudice.

3. *Centripetal’s Indirect Infringement Claims Also Fail Because Centripetal Has Not Alleged The Required Elements of Those Claims*

As PAN noted in its first motion to dismiss, a required element of any contributory infringement claim is demonstrating that the products or components sold by the defendant “have no substantial noninfringing uses.” *i4i Ltd. P’ship*, 598 F.3d at 850–51 (citing 35 U.S.C. § 271(c)). Although Centripetal repeats its allegation that “PAN has contributorily infringed and continues to contributorily infringe one or more claims” of the Asserted Patents, Centripetal fails to allege, much less plead any supporting facts to plausibly show, that the Accused Products lack substantial non-infringing uses. Indeed, its allegations instead demonstrate implausibility.

For example, Centripetal alleges that “PAN contributorily infringes the ’028 Patent . . . because it has provided software and computer systems with software installed that act as a material component of claims of the ’028 Patent.” Am. Compl. ¶ 103. Centripetal further alleges that “PAN knows that its products are particularly suited to be used in an infringing manner,” and the Accused Products “are not staple articles or commodities of commerce because they are specifically made to be used in an infringing manner.” *Id.* At no point, however, does Centripetal allege—much less plead any supporting facts to plausibly show—that the Accused Products have

no substantial non-infringing uses, as § 271(c) requires. *See id.* at ¶¶ 98-107.

Moreover, any possible assertion that the Accused Products have no substantial non-infringing use is directly undermined by the Amended Complaint. For example, although Centripetal conclusorily alleges the NGFW products could alone infringe the '028 Patent, all of Centripetal's claim-specific infringement allegations for the '028 Patent—to the extent they can be deciphered—appear to require the use of two or more Accused Products in combination (*i.e.*, at least NGFW, Panorama, and AutoFocus). *See, e.g.*, Am. Compl. ¶¶ 82-89. With respect to the other Accused Products, Centripetal does not allege that any of those products could alone infringe the '028 Patent. *See, e.g.*, Am. Compl. ¶ 82. Because the Accused Products do not have to be used together, however, they each necessarily have independent non-infringing uses.⁷ Accordingly, Centripetal's own allegations demonstrate the implausibility of any contention that the Accused Products lack substantial non-infringing uses.

The allegations in Centripetal's contributory infringement claims for the other Asserted Patents follow the same format, and thus also fail to allege that the Accused Products have no substantial non-infringing uses.⁸ All of Centripetal's claims for contributory infringement are insufficiently pled and must be dismissed. *Bill of Lading*, 681 F.3d at 1337 (“To state a claim for contributory infringement, therefore, a plaintiff must, among other things, plead facts that allow an inference that the components sold or offered for sale have no substantial non-infringing uses.”).

In addition, Centripetal fails to plead any factual allegations to show it is plausible that PAN specifically intended its customers to infringe any of the Asserted Patents, as required for

⁷ *See* Am. Compl., Ex. 29 at 10 (noting that “[y]ou **can** manage NGFWs through Panorama,” not that you **must** do so), 11 (same); Ex. 17 (describing Panorama as an independent product that may be used for “network security management”); Ex. 22 (describing AutoFocus as an independent product that may be used to provide “threat intelligence”).

⁸ *See* Am. Compl. ¶¶ 132, 164, 198, 227, 257, 287, 318, 344, 373, 403, 432, 464.

inducement, or that PAN knew that its products were “especially made” for use in an infringement of the Asserted Patents, as required for contributory infringement. *CarFax*, 119 F. Supp. 3d at 414; *Jenkins*, 2017 WL 376154, at *4. As such, Centripetal’s claims for indirect infringement (both induced and contributory infringement) should be dismissed with prejudice.

C. Centripetal Fails to Plausibly Allege Direct Infringement Of Any Accused Product (Or Combination Thereof)

Centripetal’s direct infringement allegations suffer from two fatal flaws. First, Centripetal’s direct infringement allegations fail to provide enough specificity to place PAN on notice of what products are accused of infringement. *See Bot M8*, 2021 WL 2932690, at *6 (complaint must “place the alleged infringer ‘on notice of what activity . . . is being accused of infringement’”). Rather than identifying individual products that it contends infringe, Centripetal broadly uses marketing names (*e.g.*, “NGFW”, “Panorama,” and “Cortex”) that refer to entire product lines. *See* Am. Compl. at ¶82; *see e.g.*, <https://www.paloaltonetworks.com/network-security/next-generation-firewall> (listing many individual products that are sold under the marketing name “Next-Generation Firewalls”). In addition, Centripetal fails to specify any release or configuration that allegedly infringes, which is particularly problematic given that some products within at least the NGFW and Panorama product lines pre-date the Asserted Patents.⁹

Second, like the allegations found inadequate in *Bot M8*, Centripetal’s direct infringement allegations fail to “articulate why it is plausible that the accused product infringes the patent claim.” 2021 WL 2932690, at *7. Taking the ’028 Patent as an example, Am. Compl. at ¶¶ 79-

⁹ *See, e.g.*, <https://www.paloaltonetworks.com/cyberpedia/the-evolution-of-firewalls-from-packet-filtering-to-machine-learning-powered-ngfws#:~:text=In%202008%2C%20Palo%20Alto%20Networks,addition%20to%20stateful%20firewall%20capabilities> (stating that products within the NGFW product line were available as early as 2008, which is well before the earliest issue date of the Asserted Patents); <https://www.paloaltonetworks.com/services/support/end-of-life-announcements/end-of-life-summary> (identifying Panorama products that reached “end of life” before the earliest issue date of the Asserted Patents).

89, Centripetal’s allegations are largely made up of legal conclusions (§ 79), restatements of the elements of the cause of action (§§ 80-82), an identification of seven PAN product lines that Centripetal contends include infringing products (§ 82), and a near verbatim recitation of claim language from the Asserted Patents coupled with the conclusory assertion that the Accused Products include each recited element and therefore infringe (§ 83). Paragraphs 84-89 are the only paragraphs that include factual allegations relating to the Accused Products. *Id.* at §§ 84-89.

But those paragraphs—like the allegations found to be insufficient in *Bot M8*—do not “support a plausible inference” that any Accused Product (or combination or version thereof) actually satisfies the elements of any asserted claim. *Bot M8*, 2021 WL 2932690, at *7-8 (affirming dismissal of complaint that “point[ed] to different . . . components in the allegedly infringing devices, [but] never [said] which one or ones satisfy the [claim] limitation”). For example, Centripetal alleges the Accused Products infringe the ’028 patent “under at least the following scenarios: (1) NGFW, (2) NGFW and Panorama, (3) NGFW, Panorama, and Cortex, (4) NGFW and Cortex, with any of the scenarios alone or in combination with AutoFocus, MineMeld or DNS Security.” Am. Compl. at § 82. But its infringement allegations are a disorganized jumble in which all products/combinations are presented together without any plausible showing that any particular product or combination, configuration, or version of products allegedly infringes, or how it does so. *See* Am. Compl. at §§ 84-89. Centripetal’s direct infringement allegations for the other Asserted Patents are the similarly deficient.¹⁰

These failings are fatal to all of Centripetal’s direct infringement claims. And because liability for inducement and contributory infringement arises only if there is direct infringement,

¹⁰ *See id.* at §§ 114-118, 143-150, 175-184, 209-213, 238-243, 268-273, 298-304, 329-330, 355-359, 384-389, 413-418, 443-450.

see supra Section III(B), they are also fatal to Centripetal’s indirect infringement claims. *Chan Soo Kim*, 2018 WL 1172998, at *3 (“The plaintiffs fail to state a claim for direct infringement, so their claim for induced infringement cannot succeed.”); *Jenkins*, 2017 WL 376154, at *5.

D. The ’126 and ’028 Packet Filtering Patents Are Patent Ineligible Under § 101

1. *The ’126 and ’028 Patents and Their Representative Claims*

The ’126 and ’028 Patents (Am. Compl. Exs. 2 and 1, respectively), which share the same specifications,¹¹ named inventors, assignees, and effective filing date (as continuations from a common application), are directed to rule-based packet filtering. *See* ’028 Patent, 1:48-49; Am. Compl. ¶¶ 14, 16 (acknowledging that the ’126 and ’028 Patents are directed to “filtering network data packet transfers based on one or more rules” and provide “a rule-based network threat detection technique”). The idea of using *rules* to filter is as old as the concept of filtering itself, and the claims of the ’126 and ’028 Patents are directed to merely the abstract idea of using rules to filter data within the particular technological environment of a computer network.

As shown by the bolded text of independent claim 8 of the ’028 Patent (*see* Ex. A), beyond a generic packet filtering device, the purported invention is claimed entirely in functional terms. And while verbose, claim 8 is very simple. It claims a packet filtering device that: (1) receives packets and rules (that correspond to network threat indicators); (2) allows a first packet to proceed to its destination if that packet satisfies a first rule, and communicates information about that event; (3) receives an update to at least one rule to modify the operator (from allow to block a packet) when that rule is met; and (4) prevents (*i.e.*, blocks) a second packet from proceeding if that packet satisfies the modified first rule, and communicates information about that event. Notably missing

¹¹ The only differences in the specifications are in the “Cross Reference to Related Applications” and “Summary” sections. ’028 Patent, 1:4-14, 1:39-2:14; ’126 Patent at 1:4-16, 1:41-2:16. Accordingly, most citations in this section are to the ’028 Patent.

from the claim is any recitation of *what rules* to use or *how* to perform the recited functions—let alone how to identify or block network threats. Instead, the claim is directed to the abstract idea of using rule-based packet filtering.

Claim 8 of the '028 Patent is representative of all asserted claims of the '028 and '126 Patents because all of those claims are “substantially similar and linked to the same abstract idea” as '126 claim 8 and '028 claim 8—using rules to filter packets. *Content Extraction*, 776 F.3d at 1348; *Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1334-35, 1337 (Fed. Cir. 2017) (holding claims of two patents ineligible based on analysis of claim from one). Indeed, Centripetal's Amended Complaint treats all claims of these patents the same. Am. Compl. ¶¶ 41-49. Independent claim 8 of the '126 Patent is nearly identical to claim 8 of the '028 Patent, except that the former specifies that rules are received from, and information is communicated to, a generic “rule provider device” and that the network-threat indicators “comprise unique Internet host addresses or names.” '126 Patent, 19:60, 20:1-3.¹² The other independent claims are also nearly identical except they claim a method and computer-readable media corresponding to the device of claim 8. The dependent claims of the '028 Patent add trivial limitations that Centripetal does not allege to be non-abstract or inventive—because they are not. *See* Am. Compl. ¶ 49. Each dependent claim of both the '028 and '126 Patents is directed to the same impermissibly abstract idea of using rules to filter data, *IV I*, 838 F.3d at 1357, reciting only result-oriented, functional claim language. *Elec. Power*, 830 F.3d at 1356. No claim recites additional, much less non-generic, computer components. Therefore, this Court may properly analyze claim 8 of the '028

¹² After an obviousness-type double patenting rejection of the '028 Patent, applicant filed a terminal disclaimer over the '126 Patent, which is “a strong clue that” the '028 claims “lack[] a patentable distinction over” the '126 claims. *See Simple Air, Inc. v. Google LLC*, 884 F.3d 1160, 1168 (Fed. Cir. 2018).

Patent as representative. *Content Extraction*, 776 F.3d at 1348.

2. Alice Step One: The Claims Are Directed to the Abstract Idea of Using Rules to Filter Data

The claims of the '126 and '028 Patents are directed to the abstract idea of using rules to filter data—precisely what the Federal Circuit found impermissibly abstract in *IV I*, 838 F.3d at 1313-14. There, the claims recited “receiving ... file content identifiers for data files,” “creating file content IDs,” “determining ... whether [the] content identifier matches ... other identifiers,” and “outputting ... an indication of the data file based on [the determination].” *Id.* Similarly, the claims here are directed merely to “receiv[ing] ... packet filtering rules ... to identify packets,” “apply[ing] ... an operator specified by the first packet filtering rule” to a first and second packet, and “communicat[ing] information” related to whether packet delivery was allowed or blocked—rendering the claims impermissibly abstract. *See id.*; *see also Ericsson Inc. v. TCL Commc'n Tech. Holdings Ltd.*, 955 F.3d 1317, 1327 (Fed. Cir. 2020) (“[W]e have repeatedly found the concept of controlling access to resources via software to be an abstract idea.”); *Elec. Power*, 830 F.3d at 1353 (holding ineligible claims directed to the abstract idea of “collecting information, analyzing it, and displaying certain results of the collection and analysis”); *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1094 (Fed. Cir. 2016) (holding ineligible claims “directed to collecting and analyzing information to detect misuse and notifying a user when misuse is detected”); *Intellectual Ventures II LLC v. JP Morgan Chase & Co.*, No. 13-cv-3777, 2015 WL 1941331, *1, 8-12 (S.D.N.Y. Apr. 28, 2015) (holding ineligible claims directed to an “improved method for detecting and preventing entry of a packet containing ‘malware’” using “access rules”). Receiving a packet filtering rule is merely collecting information, which the Federal Circuit has long held abstract. *Elec. Power*, 830 F.3d at 1353-54. Applying rules is a mental process falling within the abstract idea category. *Id.* at 1354. And communicating, or “merely presenting the

results of,” the abstract processes of receiving and applying is also abstract. *Id.* (citation omitted).

The § 101-inspired allegations that Centripetal added to its Amended Complaint are unavailing, as these new allegations (a) do not (and could not) change the abstract nature of the patents’ claims, and (b) present sweeping, conclusory allegations about eligibility that a Court need not accept as true. *Simio, LLC v. Flexsim Software Prods., Inc.*, 983 F.3d 1353 (Fed. Cir. 2020) (“A statement that a feature ‘improves the functioning and operations of the computer’ is, by itself, conclusory.”); *Cisco Sys., Inc. v. Uniloc 2017 LLC*, 813 Fed. App’x. 495, 498-99 (Fed. Cir. 2020) (“sweeping conclusory statements...[do] not preclude dismissal”).

First, Centripetal’s allegation that the claims are directed to “the use of network threat indicators that are used to prevent malicious attacks on a network,” confirms their abstractness. Am. Compl. ¶ 47. Permitting or preventing something from passing a barrier based on an indicator of a threat—such as a passport from an adversary country; residence in a neighboring hostile fiefdom; a suspicious package with no return address—merely describes filtering for threats, an abstract idea, and has long been practiced to limit entry to a protected area. That the filtering here is performed using a **network** threat indicator does not change the abstract nature of the claims.¹³ As PAN established in its first motion to dismiss, the claims merely limit “an age-old practice” to “a particular ... technological environment”—here, packets moving through a computer network—which is insufficient. *IV I*, 838 F.3d at 1330; *FairWarning*, 839 F.3d at 1094-95 (invalidating claims that “merely implement an old practice in a new environment”). Yet, Centripetal ignores these cases and repeats, in its Amended Complaint, the same failed argument that the claims are limited to a network environment.

¹³ The ’028 specification admits that it was conventional to use “network-threat indicators” in network security. Am. Comp., Ex. 1 at 1:23-27.

Second, Centripetal alleges that the claims are non-abstract because they purportedly improve network security. Am. Compl. ¶¶ 41-49. But the specifications admit that the alleged invention is nothing more than automating the conventional process of human analysts comparing third-party-provided network threat indicators with packets to identify threats, by incorporating the network threat indicators into rules to be carried out by a computer. '028 Patent, 1:23-37. “[C]laiming the improved speed or efficiency inherent with applying the abstract idea [of rule-based packet filtering] on a computer [is] insufficient to render the claims patent eligible.” *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364 (Fed. Cir. 2020); *Enco Sys., Inc. v. DaVincia, LLC*, 845 Fed. App’x. 953, 957 (Fed. Cir. 2021) (finding ineligible claims that “‘conserve human resources’ by automating work otherwise performed through human labor”). Moreover, as is the case here, the Court may disregard allegations in the Complaint that merely re-package assertions of non-abstractness already rejected by the courts—such as claiming the improved “efficiency” of applying an abstract idea on a computer. *Simio*, 983 F.3d at 1365.

Third, Centripetal alleges the claims are non-abstract because they describe, “in detail,” that the “system will apply rules that are based on the network threat indicators and, **based on certain conditions**, will cause the system to **reconfigure** the packet filtering device to prevent further traffic into the network.” Am. Compl. ¶ 47. In fact, the claims recite no such thing. Rather, the claims recite receiving “an update to at least one packet filtering rule” without specifying what that update is or how it is implemented. '028 Patent at 19:63. Likewise, Centripetal relies on the purportedly “dynamic” nature of its invention, even though (a) the word “dynamic” is not in the claims, and (b) PAN had cited multiple cases in its first motion to dismiss that held that claims

directed to “dynamic” filtering are impermissibly abstract.¹⁴ *Id.* at ¶¶ 41, 48; Dkt. 53 at 13. Centripetal also alleges that the patents “detail a particular concrete solution” that “require[s] specific, unique operations be performed on a particular type of communication (data packets) and particular devices (e.g., modified operators, responsive and updated packet filtering devices).” Am. Compl. ¶ 47. But regardless of whether the specifications include such technical details, the **claims** do not require any particular concrete solution or solve a specific technological problem, much less in the manner required by the Federal Circuit.¹⁵ *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) (“Even a specification full of technical details about a physical invention may nonetheless conclude with claims that claim nothing more than the broad law or abstract idea underlying the claims.”).

Here, the claims are directed to the **result** of deploying rules to filter data, and fail to address

¹⁴ The use of a dynamic rule for filtering data is as abstract, and longstanding, as is the use of a static rule, and is not “necessarily rooted in computer networks.” *See, e.g., Citrix Sys., Inc. v. Avi Networks, Inc.*, 363 F. Supp. 3d 511, 522 (D. Del. 2019) (use of a dynamic rather than static response in a computer network is an abstract idea, is not rooted in computer networks, and would have similar advantages in contexts other than computer networks); *see also Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1339-40, 1342-48 (Fed. Cir. 2018) (claims to dynamically receiving and updating displayed data in a network were patent-ineligible); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341-42 (Fed. Cir. 2017) (claims to dynamic modification of XML computer files are impermissibly abstract). Examples of dynamic filtering based on rules are common: a castle guard allows entry by subjects of a given fiefdom one day, but blocks them the next based on a proclamation from the king; a prison guard permits certain types of packages into prison one day, but blocks them the next day based on a security alert issued by the warden; an assistant permits certain types of telephone calls to reach his executive one day, but blocks them the next based on the executive’s directive.

¹⁵ *Cf. SRI Int’l, Inc. v. Cisco Sys., Inc.*, 930 F.3d 1295, 1303 (Fed. Cir. 2019) (finding that claims were directed to a “**specific technique**” for solving a “**technological problem** in computer networks,” where “the claims actually **prevent the normal, expected operation** of a conventional computer network”); *Finjan, Inc. v. Blue Coat Sys. Inc.*, 879 F.3d 1299, 1305-06 (Fed. Cir. 2018) (claims “employ[ed] a **new kind of file** that enables a computer security system to do **things it could not do before**”); *Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1348-49 (Fed. Cir. 2018) (claimed method “**specifically identif[ed]...a structure . . . stored in a particular, modifiable, non-volatile portion of the computer’s BIOS**” to address “**a technological problem with computers**”).

how that result is achieved. *See Free Stream Media Corp. v. Alphonso Inc.*, No. 2019-1506, 2021 WL 1880931, at *6 (Fed. Cir. May 11, 2021) (“a relevant inquiry at *Alice* Step 1 is ‘whether the claims in the[] patent[] focus on a ***specific means or method*** that improves the relevant technology or are instead directed to a ***result or effect that itself is the abstract idea*** and merely invoke generic processes and machinery’”) (citation omitted; alterations in original). The claims do not state *what* rules to use—they instead recite using unspecified “rules” that are “configured” to achieve a desired outcome (“cause the packet filtering device to identify packets corresponding to at least one of a plurality of [unspecified] network threat indicators”). Nor do the claims specify *how* the rules are used, *how* they purportedly reconfigure a packet filtering device, *how* they identify a network threat, or *how* a packet filtering device determines whether a packet satisfies a rule. In other words, “the claims here do not ‘ha[ve] the specificity required to transform a claim from one claiming only a result to one claiming a way of achieving it.’” *Ericsson*, 955 F.3d at 1328 (citation omitted; alternation in original).

Finally, Centripetal’s continued reliance on generic “data packets” (Am. Compl. ¶ 43) is unavailing.¹⁶ *See Content Extraction*, 776 F.3d at 1347 (rejecting argument that claims were “not drawn to an abstract idea because human minds are unable to process and recognize the stream of bits output by a scanner”). In fact, “with the exception of generic computer-implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper,” thus underscoring their abstractness. *IV I*, 838 F.3d at 1318; *CyberSource*, 654 F.3d at 1371 (“[M]ethods which can be performed mentally, or which are

¹⁶ Centripetal raised in its Opposition to PAN’s Motion to Dismiss the unavailing argument, now reproduced as a “factual” allegation, that limiting the claims to packets in a computer network somehow makes the claims eligible. Dkt. 50 at 22. As noted in the Reply, this assertion is contrary to black letter law. Dkt. 53 at 15-16. By reasserting its argument as fact, Centripetal demonstrates that no amount of additional pleading could save these claims.

equivalent of human mental work, are unpatentable abstract ideas.”); *Two-Way Media*, 874 F.3d at 1334-35 (holding ineligible claims directed to routing and monitoring *packets* in a network); *Intellectual Ventures II LLC v. JP Morgan Chase & Co.*, No. 13-cv-3777, 2015 WL 1941331, *1, 8-12 (S.D.N.Y. Apr. 28, 2015) (holding ineligible claims directed to filtering *packets*).

3. ***Alice Step Two: The Claims Recite Non-Inventive Conventional Features and Generic, Result-Oriented Functional Limitations***

At *Alice* step two, the Court must first remove the abstract idea from the claim, and then “determine whether the *additional* elements” add an inventive concept sufficient to transform the claim. *Alice*, 573 U.S. at 217 (emphasis added). These “additional elements” of the ’126 and ’028 Patent claims contain nothing inventive (alone or as an ordered combination) that might transform the claims into patent eligible subject matter. The claims’ recitation of generic and conventional computer components—a processor and memory—does not add an inventive concept. *In re Bd. of Trs. of Leland Stanford Junior Univ.*, 989 F.3d 1367, 1374 (Fed. Cir. 2021) (“it is hard to imagine a patent claim that recites hardware limitations in more generic terms than...a ‘computer’ with a ‘processor’ and a ‘memory’”); *Ericsson*, 955 F.3d at 1330-31 (“When a claim ‘does no more than require a generic computer to perform generic computer functions,’ as here, the claims lack an inventive concept sufficient to demonstrate eligibility at step two.”) (citation omitted); *FairWarning*, 839 F.3d at 1096 (“[R]ecitations of basic computer hardware, such . . . a microprocessor” did not make claims directed to abstract ideas patent eligible). Further, the claims recite those components at a high-level of generality, and the specifications establish that both components were conventional. *E.g.*, ’028 Patent, 3:60-63 (“Packet-filtering device 144 may include memory 208, one or more processors 210, one or more communication interfaces 212, and data bus 214.”), 3:67-4:5, 16:64-17:19 (describing functions and steps executed by generic “computers or other devices” and “program modules”). And the claims do not recite an “override”

of the normal operation of these conventional components—nor does Centripetal contend otherwise. *Cf. DDR*, 773 F.3d at 1258.

Despite Centripetal’s conclusory allegations otherwise (Am. Compl. ¶ 48), there also is nothing inventive about the “utilization of information from independent threat-intelligence providers” or “dynamically updating rule sets.” The specifications admit it was conventional practice for organizations to receive reports of network-threat indicators from third-party threat-intelligence providers and to compare them to traffic logs. ‘028 Patent, 1:17-35. Further, as PAN’s analogies confirm, “dynamically updating rule sets” or “reconfiguration of operators within packet filtering rules” to filter threats is not remotely inventive. Am. Compl. ¶ 48. “[E]ven assuming [updating rules based on network threat indicators] had not been done before, there is nothing inventive disclosed in the claims that permits [packet filtering in a manner] that w[as] previously not possible.” *Free Stream Media*, 2021 WL 1880931, at *7 (holding claims patent-ineligible).

Other aspects of the claims, such as the use of generic “rules” with “operators” to filter data is part of the abstract idea itself, and therefore cannot be credited as “inventive” in the step two analysis. But even if such use were credited at step two, it would not change the outcome because use of generic “rules” and “operators” to filter data was not new, and those elements “merely describe the functions of the abstract idea itself, without particularity,” therefore failing to supply any inventive concept. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (“*Capital One*”).

“Other precedent illustrates that pragmatic analysis of § 101 is facilitated by considerations analogous to those of §§ 102 and 103 as applied to the particular case.” *Internet Pats. Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015). Here, the Federal Circuit recently

affirmed the PTAB’s determination that many claims of the ’722 patent¹⁷ were invalid as obvious in view of a single reference, a ruling that also post-dated Judge Morgan’s earlier decision in the *Keysight* case. *See Centripetal Networks, Inc. v. Cisco Sys.*, No. 2020-2057, slip op. at 1, 15 (Fed. Cir. Mar. 10, 2021) (affirming the PTAB’s determination that claims 1–7, 10–12, 14–21, 24, and 25 in the ’722 patent are invalid because they “would have been obvious to a relevant artisan under 35 U.S.C. § 103 in view of a User Guide for the Sourcefire 3D System—a manual the parties have called ‘Sourcefire.’”). As shown in the attached Exhibits C and D, representative claim 8 of each of the ’028 and ’126 Patents recite nearly identical limitations as claim 19 of the ’722 Patent, which the Federal Circuit held was obvious in view of a single reference describing a prior art packet filtering device.¹⁸ With their abstract idea removed, there is nothing inventive in these claims.

Therefore, the claims of the ’126 and ’028 Patents are ineligible under § 101.

E. The ’246 Packet Sorting Patent Is Patent Ineligible Under § 101

1. *Background of the ’246 Patent and its Representative Claims*

The ’246 Patent is directed to rule-based data sorting. As shown by independent claim 8, the alleged invention is directed to this longstanding practice (*e.g.*, as in a mailroom), implemented

¹⁷ The Court may take judicial notice of the ’722 Patent, attached as Ex. B, under Fed. R. Evid. 201. Courts may consider documents attached to a motion to dismiss so long as they are integral to the complaint and relevant. *See Blankenship v. Manchin*, 471 F.3d 523, n.1 (4th Cir. 2006). Items in the public record, like patents and judicial decisions, may be subject to judicial notice. *See Hall v. Virginia*, 385 F.3d 421, 424, n.3 (4th Cir. 2004). The Complaint specifically references prior litigations against Keysight and Cisco, in which Centripetal asserted the ’722 Patent. Am. Compl. ¶¶ 67, 73. The ’722 Patent attached hereto is identical to the ’722 Patent attached to the complaints in those actions. *E.g.*, *Centripetal Networks, Inc. v. Keysight Techs., Inc.*, No. 2:17-cv-383, ECF No. 1-4 (E.D. Va. July 20, 2017).

¹⁸ While Cisco did not appeal to the Federal Circuit the PTAB’s determination that Cisco had not shown that five dependent claims (claims 8, 9, 13, 22 and 23) of the ’722 Patent were obvious over the single prior art reference at issue in the underlying *inter partes* review proceeding, *see Centripetal*, slip op. at 9, n.2, none of the claims in the ’126 or ’028 Patents mirrors any of those five dependent claims. *Compare* Ex. B at 19:59-20:9, 20:49-54, 21:55-22:34, *with* Am. Compl., Exs. 1 at 17:45-23:22 & 2 at 17:48-23:35.

on a generic computer and with respect to network data packets. *See* Ex. E. As shown in bold, *see id.*, the purported invention is claimed in functional terms and is devoid of any implementation detail. Distilled, claim 8 recites a device that (a) receives packets and rules, and (b) executes, sequentially, three sets of rules, where each rule specifies a larger set of addresses.

Claim 8 is representative of each asserted claim of the '246 Patent, as each claim is directed to rule-based data sorting. Independent claims 1 and 15 are nearly identical to claim 8, except that claim 1 recites a method and claim 15 recites a computer-readable medium. The dependent claims provide merely minor alterations for various rules (*e.g.*, identifying spoofed/protected addresses to drop/copy packets, as in claims 2, 6, 7, 9, 13, 14, 16, and 20, without specifying *what rules* to use or *how* to accomplish those functions); additional generic components (*e.g.*, network interfaces in claims 3, 10, and 17); and additional functional, result-based limitations without any recitation of *how* to accomplish those functions (*e.g.*, performing packet alteration/transformation functions in claims 4, 5, 11, 12, 18, and 19). None of these additional limitations alters the § 101 analysis.

2. ***Alice Step One: The Claims Are Directed to the Abstract Idea of Sorting Data According to Rules***

Claims directed to the abstract idea of sorting computer data according to rules are patent ineligible. *IV I*, 838 F.3d at 1316-1318 (claims directed to “receiving, screening, and distributing e-mail” impermissibly abstract and analogous to corporate mailroom). The claims of the '246 Patent and those in *IV I* recite nearly identical steps. There, the claims recited a post office for email comprising “a database of business rules,” “a rule engine ... to selectively apply the business rules,” and a “distribution mechanism ... to control delivery of the e-mail message” *Id.* at 1316-17. Similarly, here the '246 claims recite a network security device configured to “receive ... a plurality of rule sets ... [and] packets,” and “execute” a first, second, and third rule sequentially, which rules specify sets of addresses. The '246 claims are ineligible for the same reasons as the claims in *IV*

I. Likewise, the Federal Circuit has held other analogous claims to be directed to unpatentable subject matter. *See Elec. Power*, 830 F.3d at 1353 (“collecting information, analyzing it, and displaying certain results of the collection and analysis” is unpatentable); *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017) (“*Capital One*”) (“the abstract idea of collecting, displaying, and manipulating data” is unpatentable).

Centripetal’s Amended Complaint alleges the “’246 Patent ***covers*** network security devices ... that process” packets “with multiple rulesets ***prioritized*** to apply at different times.” Am. Compl. ¶ 50-53. As an initial matter, what a patent claim ***covers*** is different than what the claim ***requires***. A claim can ***cover*** non-abstract implementations, but still be impermissibly abstract if not limited to such concrete, particular implementations—as is the case here.¹⁹ Like the claims in *IV I* to “screening messages,” which the Federal Circuit analogized to corporate mailrooms, 838 F.3d at 1317-18, the ’246 claims sequentially sort incoming data packets according to rules to forward the packets to appropriate addresses. Implementing an old practice on generic computers cannot save the claim from abstraction. *See Credit Acceptance Corp.*, 859 F.3d at 1055. Further, the claims can be performed largely, if not entirely, mentally—executing a rule that specifies a set of addresses to where a packet “should” go requires nothing more than use of one’s mental faculties. And applying rules to network packets (instead of in some other technological environment), or on a “packet-by-packet” basis, does not alter the claims’ focus on sorting data according to rules, or save the claims from being abstract.

Further confirming that the claims are abstract, they do not recite ***how*** network attacks are

¹⁹ Further, even if the claims were limited to such “prioritized” rulesets, they would still be impermissibly abstract for claiming long-prevalent practices—*e.g.*, sorting mail and delivering first to executives, then managers, then everyone else; boarding a plane where ticketed passengers are allowed on the plane sorted by First Class, Business Class, and general boarding; etc.—using generic computers. *See Credit Acceptance Corp.*, 859 F.3d at 1055.

identified or stopped; rather they are directed merely to the *idea* of using rules to sort data. Centripetal also does not—and cannot—allege that the ’246 claims are “rooted in computer technology to overcome a problem specifically arising in computer networks,” which is not surprising given that neither sorting data nor preventing intrusions is unique to networks.

3. Alice Step Two: The Claims Recite Conventional Features and Generic, Result-Oriented Functional Limitations That Are Not Inventive

With the abstract idea removed from the ’246 Patent claims, their additional elements contain no inventive features to transform the claims into patent eligible subject matter. The claimed packet security gateway is described as “any computing device configured to receive packets and perform a packet transformation function on the packets.” ’246 Patent, 4:50-52. As with the ’126 and ’028 claims, recitation of generic, conventional computer components—a “processor” and “memory,” and in some dependent claims, an “interface” to receive packets—does not add an inventive concept. *Alice*, 573 U.S. at 223-24; *FairWarning*, 839 F.3d at 1096; *Bd. of Trs. of Leland Stanford Junior Univ.*, 989 F.3d at 1374. Further, none of the claims purports to “override” the normal operation of the claimed components. *Cf. DDR*, 773 F.3d at 1258.

Similarly, the rules recited in the ’246 Patent’s claims do not supply an inventive concept because they are (a) part of the abstract idea itself, and (b) set forth in wholly functional terms—describing merely the desired result, instead of concrete, particular solutions for achieving that result. “[E]ssentially result-focused, functional ... claim language has been a frequent feature of claims held ineligible under § 101.” *Elec. Power*, 830 F.3d at 1356. The claims fail to describe *what rules* to use, *how* any of the claimed rules are formed or executed, or *how* any of the other functions recited by the claims are achieved. *See id.* at 1355 (“Inquiry therefore must turn to any requirements for *how* the desired result is achieved.”) (emphasis in original). The limitations of the claims here do not instruct how technologically to perform the claimed steps, only that they

should be done. *See Interval Licensing LLC v. AOL, Inc.*, 896 F.3d 1335, 1345 (Fed. Cir. 2018) (finding claims ineligible where the “limitations are for either collecting a second data set or controlling the order and timing of when to display the collected second data set, not for *how* to engineer or program the display of the second data set”) (emphasis in original).

Nor does it suffice for Centripetal to allege that the claims are inventive because network traffic was traditionally processed in an opposite manner. Am. Compl. ¶ 54. Far from being an “inventive concept,” this is (1) the epitome of an abstract idea, and (2) self-evidently not inventive. Sorting (executing rules) from smallest to largest, whether based on addresses or anything else, is entirely routine and conventional activity. For example, an airline might board passengers sitting in first class (fewest seats) first, business class second, and coach class (with the most seats) third.

Therefore, the claims of the '246 Patent are ineligible under § 101.

III. CONCLUSION

Centripetal has not plausibly alleged indirect infringement (induced or contributory) or willful infringement. Centripetal's direct infringement allegations are also deficient in that they fail to provide enough specificity to place PAN on notice of how any particular product or combination thereof would infringe. This defect is fatal to both Centripetal's direct and indirect infringement claims. Further, the asserted claims of the '126, '028, and '246 Patents are directed to abstract ideas using generic computer components. Precedent confirms that such a bare combination is insufficient to confer patent eligibility. Thus, the patent-ineligibility of these claims is well-suited for disposition on a motion to dismiss. For the reasons set forth above, PAN respectfully requests that this Court grant its Motion to Dismiss Plaintiff's Amended Complaint with prejudice.

Dated: July 30, 2021

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on July 30, 2021, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send a notification of such filing to all counsel of record.

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